**Assignment 4**

1. What exactly is []?

**Ans.** it is the square brackets used to store the list contents.

2. In a list of values stored in a variable called spam, how would you assign the value 'hello' as the third value? (Assume [2, 4, 6, 8, 10] are in spam.)

**Ans.** spam[2]=”hello”

Let's pretend the spam includes the list ['a', 'b', 'c', 'd'] for the next three queries.

3. What is the value of spam[int(int('3' \* 2) / 11)]?

**Ans.** d

4. What is the value of spam[-1]?

**Ans.** d

5. What is the value of spam[:2]?

**Ans.** a,b

Let's pretend bacon has the list [3.14, 'cat', 11, 'cat', True] for the next three questions.

6. What is the value of bacon.index('cat')?

**Ans**.1

7. How does bacon.append(99) change the look of the list value in bacon?

**Ans.** list [3.14, 'cat', 11, 'cat', True,99]

8. How does bacon.remove('cat') change the look of the list in bacon?

**Ans.** [3.14, 11, 'cat', True] it remove the first cat only

9. What are the list concatenation and list replication operators?

**Ans**. The operator for list concatenation is +, while the operator for replication is \*

10. What is difference between the list methods append() and insert()?

**Ans.** The only difference between append() and insert() is that insert function allows us to add a specific element at a specified index of the list unlike append() where we can add the element only at end of the list.

11. What are the two methods for removing items from a list?

**Ans**. remove and pop methods

12. Describe how list values and string values are identical.

**Ans**. they both have the sequences and follows the property of the slicing.

13. What's the difference between tuples and lists?

**Ans.** The key difference between the tuples and lists is that while the tuples are immutable objects the lists are mutable. This means that tuples cannot be changed while the lists can be modified.

14. How do you type a tuple value that only contains the integer 42?

**Ans.(**42,)

15. How do you get a list value's tuple form? How do you get a tuple value's list form?

**Ans.** using list and tuple methods

Eg.list1=[67,332,23]

Tuple(list1)

16. Variables that "contain" list values are not necessarily lists themselves. Instead, what do they contain?

**Ans.** list contains string,integers,float,tuple list.

17. How do you distinguish between copy.copy() and copy.deepcopy()?

**Ans**.copy() create reference to original object. If you change copied object - you change the original object. . deepcopy() creates new object and does real copying of original object to new one